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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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## QUESTIONS AND ANSWERS ON SMALLPOX AND VACCINATION

By J. P. LEAKE, Surgeon, United States Public Health Service

The following questions are not infrequently asked by physicians in regard to variola and its prevention. Part of the answers given are supported by good evidence, part by conclusive evidence, but much, unfortunately, is only opinion, a personal weighing of such evidence as is at hand; yet each of the questions should have a tentative answer, according to the best light available. Further information may change the answers given here. Though for nearly every statement that can be made concerning smallpox some support can be found in the literature, a few of the observations here recorded are original. It is hoped that many of the gaps in our knowledge of smallpox and vaccination may soon be filled. Of all infectious diseases prevalent in the United States this disease is the most completely preventable by public health measures.

1. *What is the best method of vaccination?*

Probably the "multiple pressure or prick" method.<sup>1</sup> This consists of a shallow, tangential pricking of the cleansed, but not irritated, skin with a needle, through a drop of smallpox vaccine, covering an area not greater than one-eighth of an inch (3 millimeters) in diameter. This gives little chance of accidental infection and the eruption is typical. Acetone

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Dr. J. P. Leake provided specific and detailed answers to 23 questions about smallpox. He covered vaccination techniques, reactions, and complications, the necessity and methods for protecting vaccine potency, and the diagnosis, course, and virulence of the disease.